

AMENDMENTS TO THE CLAIMS

1. (Original) A process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc), which comprises adding yeast cells, N-acetylglucosamine-6-phosphate 2-epimerase (GlcNAc-6P 2-epimerase), N-acetylneuraminic acid lyase (NeuAc lyase), and CMP-N-acetylneuraminic acid synthase (CMP-NeuAc synthase) to a reaction system containing N-acetylglucosamine (GlcNAc), pyruvate, and cytidine 5'-monophosphate (CMP), and inducing reaction of the mixture.

2. (Original) The process according to claim 1, wherein the process comprises adding N-acetylglucosamine-6-phosphate 2-epimerase (GlcNAc-6P 2-epimerase) and N-acetylneuraminic acid lyase (NeuAc lyase) to a reaction system containing N-acetylglucosamine (GlcNAc) and pyruvate, to thereby synthesize N-acetylneuraminic acid (NeuAc), and subsequently adding, to the resultant reaction system, cytidine 5'-monophosphate (CMP), yeast cells, and cytidine 5'-monophosphate N-acetylneuraminic acid synthase (CMP-NeuAc synthase), to thereby synthesize CMP-N-acetylneuraminic acid (CMP-NeuAc).

3. (Currently Amended) The process according to claim 1, wherein cells (including transformants)which express GlcNAc-6P 2-epimerase, NeuAc lyase and/or CMP-NeuAc synthase, or processed products thereof, are employed as the GlcNAc-6P 2-epimerase, NeuAc lyase, and/or CMP-NeuAc synthase.

4. (Currently Amended) The process according to claim 1, which employs a transformant ~~of which expresses~~ GlcNAc-6P 2-epimerase ~~and~~, a transformant ~~which expresses of~~ NeuAc lyase, ~~said respective transformants having enhanced activity~~, and a processed product of cells as the CMP-NeuAc synthase.

5. (Original) A process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc), which comprises adding yeast cells, N-acetylglucosamine-6-phosphate 2-epimerase (GlcNAc-6P 2-epimerase), N-acetylneuraminic acid synthase (NeuAc synthase), and CMP-N-acetylneuraminic acid synthase (CMP-NeuAc synthase) to a reaction system containing N-acetylglucosamine (GlcNAc) and cytidine 5'-monophosphate (CMP), and inducing reaction of the mixture.

6. (Currently Amended) The process for producing CMP-N-acetylneuraminic acid (CMP-NeuAc) according to claim 5, wherein cells-including transformants which express GlcNAc-6P 2-epimerase, NeuAc lyase and/or CMP-NeuAc synthase, or processed products thereof, are employed as the GlcNAc-6P 2-epimerase, NeuAc synthase, ~~or~~and/or CMP-NeuAc synthase.

7. (Currently Amended) The process according to claim 5, which employs a transformant ~~of~~which expresses GlcNAc-6P 2-epimerase-~~and~~, a transformant ~~of~~which expresses NeuAc synthase, ~~said respective transformants having enhanced activity~~, and a processed product of cells having CMP-NeuAc synthase activity as the CMP-NeuAc synthase.